Diagram

Description automatically generated

Lambda Expression?

* Lambda expression is a new and important feature of Java that was included in Java SE 8.
* It is a short block of code that takes in parameters and returns a value.
* It can be stored in a variable if the variable type is an interface that has only one method.
* Basically, express instances of functional interface.
* It is very useful in the collection library. It **helps to iterate, filter,** and **extract data from the collection**.
* The Lambda expression is used to provide the implementation of an interface that has a functional interface.
* **Java lambda expression is treated as a function**, so the compiler **does not create a .class file**.

Functional Interface

Lambda expression provides an implementation of a functional interface.

An interface that has only one abstract method is called a functional interface.

Java provides an annotation @FunctionalInterface, which is used to declare an interface as a functional interface.

1. Given a list of numbers , return the sum of all numbers
2. Given a list of numbers , return the average of all numbers
3. Given the list of numbers , square them and filter the numbers which is greater than 100 and find the average of them
4. Given the list of numbers , return the even and odd numbers seperaely.
5. Find all numbers starting with 2
6. Print duplicate numbers.
7. Print maximum and minimum numbers
8. Sort them in ASC and DESC order and print
9. Return the first 5 element and sum of them
10. Skip the first 5 nunbers and return the sum of remaining numbers
11. Return the cube of each number